Mott Journal #5 [PN-80-09-23]

This is the fifth of six pocket notebooks used by Charles P. Mott, a member of the office staff at Menlo Park, to record daily activities at the laboratory. The entries from these notebooks were used as the basis for more extensive entries recorded by Mott in Menlo Park Notebooks #53 and #117. This pocket notebook covers the period September 1880-January 1881. The front cover is labeled "154" and is inscribed "No. 5 Sept 23. 80. to Jany 16. 81. C. P. Mott." The pages are unnumbered. Approximately 100 pages have been used.

Thursday Sept. 23, 80.

Conductor. Men commencing a
cedar fence conducted inside
X the premises. Other men sawing
wood in with saw No. 7, for cooking

Attend House Edison. Upton &
Dell went to No. 3-2 Dream to
meet some Gas men

Inspection. Having conferred with Eng.
X for a note for Rock for monument

Similar. Writing of
said Note

Com. Ted Rolder. Said made by
X Mr Prevost for large planer.

Friday Sept. 24 80

Conductor. 15 men today, no unloading
X Vessel. Temp. on outlet. Force changes. The
Laboratory, comes to outside of building.

Attend Mess. Ebrim Upton & Frances
X Note about middle of after noon

Seven pumps. Seymour here and 10 ft down
X up to most petition for seven pumps.

Papers. Received at 3 o'clock from
Receiver representing death of E. Bill

Saturday Sept. 25. 80

Lamps 20 doz. put in on lamps at Factory this morning and filling 1 wash in glass

Glass Four boxes used at Lamp Factory.

Oil Mr. Keene sent to Price with gallons for lamp [illegible] from Mans Factory.

Elec. Pen Three not at Galleries, as Pens for reproducing work of the Art and Science here in afternoon

Visitors, Among the Committee from Patent office

Monday Sept 27 80

Lamp Plant, during yesterday Pressers tools had to be run under the large Planer until the iron rubbed off

Manufactured Lamps only to be [illegible] 2740 good lamps out of 100 plus, Cutting out now at rate of 332 inspected plus per day.

Output running good all day and 18 lamps encouraging makes off

Castor Former Early 80 Castor former placed to Factory making lunch Notch & flaws, and that causing 1 man boy, can get out about 100 per day.

Tuesday Sept 28.

Commence at Factory, working steady, accounts to day, 22 Coppers on hand morning.

Commenced this Journal making the various entries in relation to the construction & alterations of the Factory & the Distribution between Construction & Tools. Give best results due to Lockwood & Greene by Bills of the morning. Book 106 page 3 &c.

Finish Dynamo work & telephone. Receive Cable from Johnson, Addis & Blake.

Commence Dynamo Machine on same as yesterday with the cable. The armature here comes at same time in a canvas bag, by the legged ship being not at dock in time.

Office Commish changing position in down stairs office for man in charge.

Flat belting Factory to day showed me a new idea in making the joints in belts, the same bolts through that the same pass in beats all now and compressed against the wire fastener in longer seal.

Break up with copper bars examined one of armatures of large Dynamo produced by one of machines connected to Gas Motor, up to 440 Revs. running 30 minutes, no hot Bearings No 116 Gas 85 lbs. at 300 Revs. 7° inclination - water thru. in 30 Min. Air 76° temp of ships at deck 88°

Wednesday Sept 29	Thursday Sept 30 80
Close the fire we used on Saturday was to day switched to Stove	Gas combination works finished and Kanadia ready for lit
Papers Sun today Mr Hazen Sun Brunch Mrs Smith be has low examined in and treating for constipation	Visitors Col Eaton
Card boxes Dressings finished and carried from Mrs Brown the call boxes for the Ind Industrial, Bob work at mill	Decoration Boys putting shiplap on old Insulated room in lab today expect for leaders to chandelier
Organ Master of hse 10 day and night the building 11 0 559 repairs	Chemical holders filled to Carpe Latin
Gas Factory Sampson 18 tests to day for 1 U.E.T.S. candles 18 117 gas 6 to 29	
Heating coffee works continue the 14 p 29	

Friday Oct. 1. 80

Testing some tubing for experimenting of operation of sub-marine railway. Transitor, and for supplying the electric current to lear of Dynamo.

Visitors at Factory, Mr Gardner and Mr Large family of Summit Ave. Calls a reporter.

Geo. Stair Brass & Copper mfrs. Large Stamps.

Carbon Former, Dillon work on Carbon Former, job all work in shop by additional Carbon former in morning.

Carbon Clamper, Anderson & Young on a clamp on vice for holding carbon while drawing Carbon.

Saturday Oct 2. 80

Papers "World" to day publishes an article apologizing for delay in machine demonstration here, attributing it to delay in getting Edw. Allen Eng.

Friend Edison Batchelor & Johnson went to New York Oct 6 80.

Mott went home sick with Chills.

Work Gen. of work. Shop of work on Large Dynamo, Dean & Assistant on clamps for Bamber and on Crank machine, Charles finishing up Drew drawing office. Factory having out quite a number of Lamps — Francis testing them. Upton & Hammer at work on Station condenser. Mr Batchelor at Factory. Johnson at work on shaft drive.

Wednesday Aug. 6

Chandelier on Sunday Stations
Put up chandelier for future in
upstairs Laboratory.

Visitors On Monday, Pullman
of the Pullman Car Co. came to see
about an electric motor for operating
transverse table for cars.

Garden Supp. Filled & marking pots
experiments on heating acetone in
vapor of Mercury &c

Combination Gas, Machine filled
today and nightly giving fairly good
gas for demands of the factory.

Bunks, Men received on night watch
December. Most of them come to day

Aug 6

Motor Andrews, finished & carefully made balance motor and delivered to Michele in Laboratory.

Visitors Man here offering Canada
Ja lamp factory.

Memorandum, Cleaned up Complete lab.
the stairs in Laboratory part of the
time at 1200 so candles at 1.00 &
in morning about 2.00 off

Engine, California left and
Al Swanson put in charge
of Engine.

Thursday Oct. 7. 80

Visit Mr. Reeves at Pittsburg.

Tab Box, Andrews finished pattern for casting of tab box — box to be used as form of connecting dome pipe with main.

Chandelier, Little Lunsbury drawing a chandelier bracket to the design by Johnson Co. 1883 page 44

Chandelier, Lincoln Edison bowl to Albert Man quality, round and round letter at $3.50 each.

Insulating machine, Mr. Fleming drawing and making drawings of machine for putting insulating material in tubes after wire are in

Friday Oct. 8.

Patents, Mack Austin copy of English Patent No. 11, 1879 of feeding to Marden equal pressure. 11 pages.

Photometer, Blake & Edison Andrews being taken to day.

Meter, Sprague, Tom and Sprague the mechanical part of meter. Work to work too with the dials.

Chandelier, Mark Free putting up chandelier & bracket up at room Lab.

Lamps, a number of lamps sealed with shell, Tom fine fitting finish on the tops and then glass to glass ready to Saturday.

Saturday Oct. 9. 80

Superintendent Edison & Blake verbal continue him to day

Canvass Mr Prime brought 3d book signed with date

Work general Factory been turning out over Fifteen hundred or some such number of Lamps, been preparing Vitreoly on large dynamo. Cleaned Carbonettes on Lamp machine and filed cutters, Gang on insulation strip conductors, Carpenters on minor work of Factory improvements building Man Mary, stands for China & Japan

Monday Oct. 11. 80

Victor F. McLaughlin

Conductors on other Eight Line been from Matter to Laboratory to illuminate part of Lamps.

Glass with jar engaged a lamp shaper to be used in that shape from Blake Factory.

Repairing pumps, minor things.

Lamps Preparations being made for testing Aiken 100 Lamps to night

Testing Franklin testing 22 100 Testing Lamps. Bill 171 Lgs.

Tuesday Oct. 12 80

Sets carbonite commutators
upon its shafts and sets up
new old one. 22 to 2 inch

Lamps 98 Lamps one Motor
Old plants 3 Gallons 3 running
Boats No. 171. 29 Oct of 180 days
time running 3.50 amp 83. + Blu No 178

Rim glass. 3 rim glass 2 x 3 ½
Heads painting appearance and
man grinding down the edges

Commutator. The casting for commutator
have been rod and bring turned
by Regan in Cage Square

Wednesday Oct. 13. 80

Prof Fuller Fireman finishes Victoria
Mine for Mr. Barton 5 to mend
Faults.

Amp. and dynamo at Mr. Lamps
for the purpose testing a few lamps
delivered the vacuum Pump

Gas. The blacks are washing
out as soon as ready to dry. and
gas pipes are being put in the work

Visitors. a Class party visitors from
Lambs Business College from San Francisco
also E M Greenwood Party Comp. Rept. N.Y.
Wales, for inspection only Lost and
running reliable ordinary

Lamp tests Bjs. 171 Page 103
No comparison made, numbers does not
seem to tally with those recent + gas Report
in house

Thursday Oct 14, 80

Olivier, Baily, Eng. Wood,

Cmd. Man digging trench on side about ten feet deep to extend Kinde drain in pond and min. completely drain it,

Rec'd Official Land Patent covering 1 piece west of Easton,

Cmd. Mr. Edison tried me on Egyptian Pine powder with water, failure,

Rotary Eng. Wells Pat. Mfg'd by Keyes Co. see lic. 700 Bus. 6 HP Gasoline 6.00 kw. 650 lam light 500 Rev.

Gas Combustion Machine patented August 10 day, working fair clean

Friday Oct 15

Gen. Tom Pendleton died 11 P.M. Oct 14

Place Flowers & Decorations

Papers Commissioner of Sculpture Amer. of Date Oct 2 80 describes Roman Tile - Decorations

Just applied in Latter case in Bill Bill Decorations 50 p. 100 Iron work and has manufactured 611 Lamps for 300 each and 1 by Marvin & Hubbard and 1 for regulator with a so described Has Demonstrated 63 of the Lamps made by Marvin in his dynamo pure in the remaining one, Patent Comb. Patent Aug. 10. 1880 Prince of Manufacturing Patent Feb. 20. 80. Signal Motion Patent 5.80 Regulator June 8. 80 Proper

For charging Co's cash Acct
Time paper, Aug. 10, 1880

Comp. can, a show case in Com
pany Cabinet, rec'd with Cases
and found on 16 cases, sent
back in the shipping box now

Made my bill showing 3 doing
the work, including Edison
Engine & work on Engine.
Instead the 3d bill was done
under the Comp.

Saturday Oct 16. 80.

Went Mr. Wilson down to Hoven
Stamping Works

Got Gaslow Canvas in exchange
for Canvas for heater bottom in
gas room & obliterated the
cut

Canvas, Mr. Nixon sent for
Book of Canvas

Pumps, the Co's pumps were
by the Sewer being over on Valley
Street and passed at 2 pm
each side back of the Dam to the
upper street

Went home. Setting Co's
Quarterly, Mr. Nixon & Cage Stamping
Co's Quarterly, Mr. Nixon & Stamping

Monday Oct. 18

Young Prince Pita Wilson also at Princeton, Sem., N. J.

Virginia Bergman shows a sealed [illegible] in resistance arrangements

Rumsey letter received.

Hooton, uses for binding water for boilers.

Meter shows all making use of small current meters magnets and revolving iron in which an iron pointer which passes within which commencing the motion to mechanism which moves the dial pointer

Gamblingy, building forbidden and gamblers warned in

Tuesday Oct. 19

Bench lamps, one bought by Mr. Ob and tried this A. M. 1 time with perfection.

Pump, Mr. Bolender experimenting in pumps, cut off pail tube and Fanny Murray across and drawing water, worked well, was about the Fanny Murray for, minutes. Bk No — pg. 67.

Visitors, Pres. Jackson of Sherman Alice Steamer.

Observed Ely on N.B. on search for Robinson, Maj. McG. fine good type for return to California

Chloroform Vapor, Francis testing carbon V. R. surface coated a little in Chloroform vapor coated nicely & [illegible] nicely

Wednesday Oct. 20

Gram pipes made of couple of cocoa
Stalks to factory for heating.

Gilliner Franklin. Heating cabin
in chlorine, gas.

Resistance box, finished yesterday, tested
all right. double wires, each resistance
from morning the other afternoon 1 hour

Tissue Large sheet of tissue paper
used to one on large commutator.

Mica Lineages Hermann drilling holes
of different sizes in carbons and
Razor in attempt to determine the sizes to use
for carbons subject to later changes

Violin Fabri & party friends

Thursday, Oct. 21, 80

Glasgow Depot. Francis examined
Jets to old Model moved and
Introduced Glasgow Depot in place
No. 6 2nd tab N.B. in to long

Brush Lamp. Riley, Upton, Mathews examined
Experiments, on heat of carbon, and by
cause of ~~things~~ time & arrangement the heating
of carbon & Edison lamp to equal
Timber, Mr. Bellman Little Experiments
Experimentation Sketches on paper for
Model cases & gram pipes for office Factory
Sketches, by Mr Edison assisted by Sig-
fin small sketch. 2. Models of Electric
Lamp to Printer, 2. carbonizations
+ 1. Bigner + assisted by himself printing
Dise Engine, Experiment here and received
Ready half an hour to get all started
filled with water.
Lieut. L. Boston

Friday Oct. 22. 80

Grant Dr. Keeni gone to N.Y.
Mr. Wilson sick - home.

Ace lamp. Wilson & Frau who con-
gave the experiments on Ace lamp
Son laid up to day with paralysis
on eye.

Meter. consists of five lamps passing
through Calendar meter. connected to
Dr made by Ell. Oct. 18. 80

Meter. Telephone moved Boston,
wall

Chinese Gas experiments a cont
by Prance. Bk. 104 pge 175

Rain, heavy rain. Cistern wash
Dr. Peck for good supply of water.

Saturday Oct 23.

Telegrams Carvey & Mann re Edison
expense Statt of T.A.2 Phosphorescent
Kenitz paper cartons in Ve. applied
to the lamp. 1878

Carvers. 5 book delivered by Purnell

Copy Patt. Edison & Stearns on Sub
Automatic magnetic signals

Annotated correspondence of Edison &
Spencer of more special attention by
Edison given to Mott for Patt office

Visitors Hoonimish Buchanan &
Lagunk for Book Binder

Monday Oct 25-80

Engineer notes yesterday's experiment with Parker Frames made of Phosphor bronze.

Examined B.B. New Jones pumps and heard boiling noisy.

Calling Foreman, report of Factory for keeping the air 80° of lower temperature to evaporation.

Visitors Bailey & Pickard & Bailey & May Eaton, agents in evening.

Statistics in Book No. 60, pages 1 to 5 relative to forms of Lamp, by Carbon, Means of heating.

Carbon, Sabin, commenced in Lamp. ~~Factory and~~ Nap burned 1 hour in furnace, carbon heavy smooth like like Steel.

Oct 25

Lamp foot on pump, Nap Carbon commenced with gauge both carbon up first, shaved avy, digestion cylinder of study, nicely coated & lamps, Nap Flue burned in muffle in furnace with Powder obtained carbon pretty new.

Water Gumber taking pulley for shaft for pump & Motor to be turned new

Tuesday Oct 26.

Lieut. Balestier & Wm. at Niagara

Hoch Factory. Filter finishing air chamber pipes for heating factory

Gardner. Dispatches. Boots 20 to 27 178 to

Riley carting packages from U.S. Exp. Co. since two running five months

Switch board. McK. Madden & Lyons of new aerial or switch board by which he claims to save one the double belonging necessary in connecting subscribers.

Wednesday Oct 27.

Gas Mould. Andrews finishing a mould for place inside Mouse for passing through gas during conflagration.

Gonzales. Dean commenced laying cable on slate

Gang letter 37 Italia by Freeman Mott received off the conflagration & paid at 7cts

Gonzales. sent from station to Englishtown. Rooms

Factory. 40 to 45 carbons testing today on letters sent by Chinaman

Sigrdor dispatch. Nod Armenia for death from yellow fever at Havana. letter

Thursday Oct 28.

Basin Team making cutting [illegible]
team finished bin smaller for
boats.

Water pipe running [illegible]
from [illegible] to [illegible] & [illegible] for
water from gallery

Inlet pipe, Heath & [illegible] — Blake
& Wilson

Cables, 65 min satin and [illegible]
pulls are in room by [illegible]
pans both complete

Engineers, blacks, engine to [illegible]
all shafting & machine open 10

Blade holder, three arms with spring and [illegible]
[illegible] with spring [illegible]
[illegible] to find the spring in [illegible]

Friday Oct 29. 80

Absent Mr. Clark, [illegible] for home
this morning.

Visitors Maj Eaton. Wilson [illegible].

Tester, to day Mr. Patterson [illegible] the
[illegible] of fitting testing chambers on
pumps same as [illegible].

Water Dynamo motor taken to gallery

Gasoline up hatch in gasoline gas. came
off very fine

Saturday Oct. 30. 80

Demand for Men wanting up to drink Liquor with & Oyster

Examination, long. & short strings made.

Work general. Experiments on heating Carbon in gas. Gears working on Large armature. Long Wire on inducing Long armature. Wire etc making Wheel molds. Gas Fitters running Steam. Boiling apparatus for heating Mr Barnum's experimenting tina having the number changed to new process. Measuring gauge. Machining to pump water from gulley

Regulation Election of Association for regulating E.W.L. B.R. 60, pge 12 etc

Note where Mr Edison [illegible] to [illegible] case which is forming Mr Edison's the other house

Wednesday Nov. 3

Stock lamps. On Monday night various lamps were burned on line past 8 D.S. lamp, and on Tuesday the entire line from Barnum to Factory was supplied and burned till nearly 12 o'clock on Monday night. Burnt 3 Sure with Magnic Carbon (Stearine) with the Carbon good but not sufficiently. Reduction of Glycerous here on Monday

Meetings film. Bradley etc.

Gas Cylinder big. near to day. 550 lbs p. 2nd

Water pump. Motor taken for [illegible] on gulley. Reserve with base, and yesterday [illegible] taken down and bumper into bringing

Water Motion. Motion by Mr E. Pat. 60 pge 13 etc on Oct. 31. Also Nov 2. pge 105 etc

Nov. 3

Water Pump attended in gallery and giving
Hydraulic Power estimates at 10 gal per Min.

Mushroom station, establishing pipe and the
telephones in the state lab in Laboratory

Absent self from Saturday till Tuesday
Inclusive

Thursday Nov. 11. 80

Visitors. Beckmann and the
superior in office from Fresh Air also
from Governor Robert Baker Agent of
Minnesota, Sen. Mr Thomson, Esq Commissary

Absent Hodgen went to Morning in station
to Bells

Washing Carbons are Mrs. Carbons letters
to factor. to be Putting lamps to go.
Heard Beer fetch one in present in
Laboratory + or factor
Washing Lamps.

Friday Nov. 5-80

Rubber lined pipe, Anderson lead made

Draughting, Rhetic acid to assist draughtsmen

Gasoline carbons, balance of treatise
X carbons separated in Camphor other & the
3223 gr. Cbn. the remainder 116

Paints, Mott made some blue screen
X paints dried from 20 drawings by sun
day exposure

Tubes containing in hot glass tube
X through which gases passing, gases

Large Metes, carbon in Shop & charcoal
X & the data was given to Porter by
Anderson

Thermometer, every thing removed
X which is in laboratory prepared by
Hawking

Nov. 5

Meter, Sam Ott removed and tube
X Laboratory, the balance meter made
rubber cups

Paints, Mr Rothner left house old, dry
scum

Gravers, Mr Russel, hunting another
X book of sources

Saturday Nov 6

Rio Grande. Bamboo used to day large
Excavation given

Armature core. Engine running. Engineers
Water cover for large armature

Pond raised 12 in by this pumping

Rita Mr. Clarke abs since Oct 29

Work general of part works Upton &
Hampson side on tabulating the results
of Phillips carousel; Edwin & Francis
Hospitality cabinet in game. Commencing
drilling with lamps in steels. Drawing
& assistants on Armature. Cunningham
on Commutator, Ace on Motor.
Serial on Magnetore of large Dynamo
arma

~~Monday~~ Nov. 8

Sunday Nov 7

Sunday. Engine running in afternoon & boys wrestling, swimming, & sailing by Pond. Sometime during Saturday night the water broken to Pond and flow down. Mr. Bessonneau making some experiments on construction of the Mechanical filter at Lowell. 3 cards of 13 passed letter

Monday Nov 8. 80

Test of lamps with Carbone Crater carbons
Experiments Mr. Brown on cutting glass
Experiments at Society meeting. Mr. Jackson
lecture in the Physic Hall of the mode of
superimposing vibrations & planes of vibration
Interference. Brown being taken down to
day on work Mr. Bessonneau lecture the Sunday
before in Interference

Dynamo bearing of machine heated
and solder. Sent down wheel has flat
abscissae

Tuesday Nov. 9. 80

Interference evidence concluded.

Hooter leader repaired & replaced pump [illegible]

Wednesday Nov. 10

Cambria Japanned new way damp

Interference evidence concluded,

Cabots stamp and monitor, finished by Andrews & Campbell for holding and passing the cement in sewer

Thursday Nov. 11. 80

Interference evidence cont'd

Race & Bath searching for the original non-terminals

Fri. cont'd. Friday Nov. 12

Weights once than usual [illegible] Nov.

Saturday Nov. 13

Afternoon heater alone was not sufficient to keep the tanks warm

Did [illegible] for through afternoon and Perkins Allen Engine driver at work

Unsigned in last week. Mason & [illegible] engaged principally on Interference. Cutter among at factory in consequence of delay in getting sewer stamp. Tools in shop finishing crosses on dynamo & [illegible] Cutter at work on Electric dynamometer. Models testing the balance meter. Results in giving good satisfaction, Brothers finished application for securing cathode so the brass may be built up without heating other parts. Arc Mason moved for lengthening 8 or 10 ohm lamps. Wiring in Institute enlarged rods

Small Engine tried on small dynamo kept from Deadhorse quite [illegible] after engine.

Sunday Nov. 14. 80

Water heater set up in kitchen room.
Warm spring over door between
Machine Shop & dynamo rooms
for enlargement, & placed all
Grinding machinery. Minor
repairs made in factory to be continued.
Engineer all night. 9 men at work
Visitors Walker with friends. 3 ladies
Warning engineer based with [illegible] Lodge
Cause unknown

Monday Nov 15

Bed plate. Safe was brought to Shop

Hot change: Afternoon to day heater
became through globe & melted the glass

E.P. Ves. Board of directors present a
meeting here in evening

Visitors. Reporter of Herald some
other interested in the E.L. Co.

Tuesday Nov 16, 80

Bart. a load several very large
Journals of Bart-filer used at
factory to day

Rate Mr. Upton with family

Water. Meters set water supply in use
Hand pumps in to work. Factory dynamo work
rapidly

Gardner. testing before meeting in lamp
room from 500 up 134 106 for 6.5 [illegible]

Head boiler prepared & steam admitted
at factory

Telegraph wires. The western Union wires
were changed from office to Laboratory

Man Power, by wheel on machine, [illegible]

Wednesday Nov. 17. 80

Papers. Best of to day given up for of Edison by Prof Morton in which he claims greater economy & durability of Maxim's lamp than for Edison but gives preference in efficiency to Edison's dynamo machine. Boston journal of Nov. 10. bought by Upton yesterday has very fair article on Edison. Should take it for comparison with Edison's & R. R. Notes Main power.

Engine foundation. Men removing soil from inner end of engine room for foundation for Mr Allen's Engine.

Back. Having is treating Back Fire acids & various solutions to soften the hair on tools B.R. 12 & 13.

Eight hours run under the B.R. & Track & foundations put in. Main depot. Eight hours gone on pavement in front of depot.

Thursday Nov. 18. 80

Weight of cathodes. Six cathodes of Mr Kinns no. 152 in satisfying Prof Morton & Renne carefully weighed were found to lose a much greater weight by gases carbonization. B.R. 10 & pg. 29.

Some carefully made Back Lamps tested to day gave about 110 hours at 16 c.c. B.R. 12 & page 15 etc. Book 16.

Papers. Herald, article on Maxim incandescent lamp with interview and remarks of Edison about it.

Fibre. Package of fine blocks from Terry shing used to day.

Friday Nov. 19, 80

Paper. Scientific American of this week date Nov. 17. Has good article showing Edison to be the pioneer in incandescent lighting, with Mr. Sawyer & the Englishman, imitators.

Eye. Dynamometer, finished by Dr. Hart

Eng. Mandalin. Floor varnished out the shop and windows work all night

Sodium, put in lamp & after exhaustion brought by heat, accross the carbons & destroyed it near clamps.

Mercury. in experiment on pumps in factory last night, an examination of the mercury showed it to contain Oxide Pain which has been needed during

Saturday Nov. 20

Street lines. The cables to Alert Lamps except about 1000 feet avenue and Leland finishing as job for at exp. average of 12 Nov. since sept 28 80

Paper. Prof. Morton publishes a paper in the Sun, to effect that the nitrogen his lectures was a mass of mass of their aspirator, this did not exist there on point not the gases.

Large dynamo, Polar extensions put in Keogan's Lottie, preparatory to trouing on the

Sparks Keys. The single point sparks used on pumps, sparkled so badly that Mr B. had a lot made, with contact

Nov 20

Hot Mercury. Mr. Bussed out from Falls, and gas jets to heat mercury for pumper, found to get pumper hot.

Usual general fast work. Red state engine in shop and putting up plates of plates in. Dies seamed on the annealer shaft & some pumpers in other parts under repairs. Mem. B.&B. Experimenting at factory on time for heating carbons in lamp & in carbonizing dies on the pumper & heating mercury. Mr. Clarke at work on power & pedestal. Otterson on depositing carbons by electricity.

Monday Nov 22.

Factory. Driving Chatoday men at work at factory putting up wires and piping for mercury pumper, using iron stop cocks in all the piping.

Carbonizing moved finished by Andrews and Tina last night. Moved up height, and carbons to hang over second piece, and be weighted at the bottom.

Engine, cylinder separated by Alfred. Fast water and some delay caused this morning in separating.

Bucheyes. Mr. Clarke at work on dynamo for 250 Bow Bucheye engine which he informs me may be making for time here on dynamo dynamo.

Nov. 22

Electrotypes. Acheson experimenting for depositing carbon by electrotype. He requests you that approach satisfaction.

Magnetism. Upton & Clark made experiment to determine whether glass plate could be deposited with silver. Result bars of iron connecting the poles with gold made to notice difference in current.

Paper. Horace has short notice and Longino states the last of Edison force lamps being on exhibition at Cat Museum S. Kingsington.

Annealer. Mach. for making plane for blowing. Mr. successfully used as annealer for cotton seed.

Tuesday Nov. 23 '80

Papers. Book of last evening. Had visitors interview with Prof. Barker in which he says. E's Lamp is 20 years in advance of anything now and that E has been searching for two years for what Mr. has found and got.

Visitors. Mr. Voller here with assistant going to work on patents some 30 cases of which the drawings have been prepared and ready for sign.

Annealer. Dean tried saw or made planer but was not steady enough preparing to use it on lathe now cutting the nines.

Wednesday Nov. 24-80

Sept. Vac. Last night dis. Bamboo Lamps were sent to Colorado. Two highly [illegible] Carbons were put in and burned about 3 hrs. on average very economical and gave fine light. Magnet in for vacuum pump [illegible] to be sent [illegible] Both strains, Mr. Clark, delivered [illegible] to Aquamo. & Meter in same box of [illegible] The both strain will be signed [illegible] the record

Visitors [illegible]

Noted a strange [illegible] by the [illegible] Beckman & friend

Chemically treated, [illegible] 2 lamps [illegible] Clarking & Prabd. Chemically

Sept. Hand to remove and [illegible] and foreign strain were sent to the factory to be measured and [illegible] of [illegible] resistance [illegible] in [illegible]

Nov. 21

Condenser Hammer made made in lamp 5 condensers of mica and foil to place in lamp along side of [illegible]

Visitors Thursday Nov. 25

Sept. Vacuum last Mr. E. Stirling and assistant watched a lamp under the expected be brought by Magnet [illegible] ready to see off all [illegible] and last vac. & lamp 2nd one on was broken about 11 to day

Soon Thanksgiving, a great many talents, morning point of the season

Friday Nov 26. 80		Saturday Nov 27.	
Repairs. Turbine gives fair and steady		Glass to lenses & 3 boxes burning glass	
full report of interview with Mr. L		Lucca this morning	
on the main, states he will consider			
of giving his resignation		Engine not running to day, no water	
Factory. Building put between Pumps and lamp made up stairs leading		Repairs. Jones has cylinder on Mr. Brennan's	
Glass House receiving lessons from		vise for brass on Coby of Pass Drill	
Lamp with seamless of all sizes from		2 shape Morton & Barber only claim in Mining	
Platina to upsan in globes, flat and		the building wrought points of carbon in gas	
4 flat chimneys. Boys receiving Drawing		Pipe repair	
through funds. Adding to room behind			
behind the Power Compressor			
Russian Mr. Clark receiving Instruction			
for Wagon & Drawing Eng.			
Office Sending Drawings & Specs, Rec'd			

Water, Engine stopped only a few minutes. Pumps all broken which delay us a little

Wednesday Dec. 1, 1880

Robt. Mott died this morning from cancer

Writes learn that Sarah Burchard died at Edwardsville on Sunday.

Galvanizing. I find in Book No. 12 pages 98 & 99 some observations made by Mr. Edison to serve to submit the galvanizing work of Carbon data Nov. 25-29

Interference. Grandjean's application comes up for hearing on Monday.

Good deed. Went in Sunday afternoon the gun for a grate for burning Mr. Carbon

G. J. Carbon. Dealer by Hand with us Monday, Nov. 29, 1880

Thursday Dec. 2, 1880

Albert Blake left Buffalo on the 1 to N. Y. via Pittsburg & Philadelphia

Papers "Tribune," letter of Orton running along by and and away

Vac. Experiments all right. Carbon and Platinum moved by strong to factory to be centered there

Electroplating. Adhesion in using one acid for solution comes get no result like in then stand in time after which gas freely formed

Friday Sept 3. 80

Dr R. tested bot. on throw. still the Pump
Motor stops its work.

Dis. Cylinder Engine, the small engine re-
turned to laboratory to drive Pump of
Hydraulic press

Machines, Pumps made cast iron — see
abandoned Homes making a new pattern
Steam tested by magnet, spark coils
and keys abandoned having exp. with
Exp. repeated with dis. building
Frances exp. on new pump. Bottle cut
tube and Mercury passing through
connection tube Plaster Plaster to and
through connections in tubes

Conductors to factory increased by
adding coils part of way

Saturday Sept 4. 80

Papers. "Sun." short disposal that
judgment deferred in P.C. Appeal in
Edison Tel. Co. London

Pulp. Mr. Clark front Shaving supports
for bolts of supporting Engine back
of following work

Pumps. directed in cast

Gasoline, Hammers interrupting in
use of hand pump in pump and Exp. o
in building stations.

Pickle general, working in Dynamo
Experiments Glass. Lower Working
Mr. Barth. repairing for Power pumps
Mr. Edison exp. on high vacuums
and lamps.

Monday Dec 6. 1880

Cabins. Sum of Sunday hour
report of interview with T.A.E.
20 days given before stating Cases
Allen Eng. & the Lamps.

Engine dynamo. Circulation revolves for
running or factory for running or testing

Indicator McKenzie using Maquet case
for indicator experimenting.

Factory. Motor. pressure stain, boiler
tips in brass room to turn H.P. for
dust case after repair of armatures.

Pumps. Mr. Cleaning Power pump
two pumps on experiment with carbonator
used on repairs since Nov 4 - inactive

Capt. Clark in N.Y.

Tuesday Dec 7. 80

Steam Murray. Hollinan grinding
glass for cleaning Mirrors

Visitors Dennis with Maj. Wells Rus. & Mr.

Lamps 4 of the 12 lamps in cascade
still burning with 180 hours

Pumps The water tube connections
found not found as good as was
expected, Power pump up and pipes
being connected

Elec. dynamo. up complete and
gives same defections which were
observed in test on the 6th.

Wednesday Dec 8 - 80

Silver Solder Dean abandoned gas-
Bunsen bottle Dean & Hobbs with charcoal

Gas by Coal oil, Mr. Ellery morning
tests of Gas by Coal oil burning

Gas machine at work. Made large
having been sufficiently demonstrated as
to accuracy and reliability.

Lamp shown me by Holger with
tube for exhausting cylinder to
prism tube here inside

Interference Quadruplex test

Pump - brown new screw with
mercury. Vacuum pump exhausts
tube prism with ground glass
through which the mercury passes

Thursday Dec 9, 80

Interference readings resumed on
General telephone case.

American Machinist this morning mentions Maxim lamp as accomplishing results sought for by Mr. E.

Telephones. a pair borrowed by Engineers
Dean to admit of speaking further
distance from mouth piece of first instrument

Brown test Bachman's engine making
tests of dynamos, destroyed armatures.

Screw pump. working mercury very
satisfactorily exhausts able to suddly
500 pounds

Friday Decr 10. 80

Papers Smith hairs the Brush lights for Albert in N.Y. as a grand Christmas gift to the lady. Days no use expects Edisons lamp to be a marvelous duty but thinks some one will produce one for that purpose

Gauge Magnets. Copper winding with 16 layers double wound wire page 20 [illegible]

Sealing off spirit lamp with gross neck like hole in beaker and tube for sealing off lamps with straight sealed tube

Visitors Dale, Agent of Duncan line took sample of sewer for furnishing the lots of Renne

Saturday Decr 11. 80

Visitor Gunson appeared this morning having arrived from London late last night

Carbon deposit Hammer & Horne put leads on main carbon in some pumps in which gasoline was introduced for sealing but did not work

Elec Signments, Constants determined by Mr Mabbs for new bridge in obs. Book No. 118 page 4742

Slate bars for burning dust condud.

Monday 13

Coal dust grate bars for Dust coal burnt under boiler yesterday.

Small Dynamo, one horse power made & measured by Reigmann and this a.m.

Blower ready to start under boiler force

Blue 7½ length carbon sealed in small globe & exhausted.

Brown pump & wood & glass & mercury & lamps sealed off during the blow-pipe experiment lamp on straight connecting tube

Bedroom furnished for student bureau by Flagg and new lamp installed (See Nov 13.)

Electric heating carbon (formed in [illegible]) [illegible] sealed off each end

Tuesday Dec 14

Pumps. Excellent success at Factory during the night from stopped this morning and a number lamps lost. Glass removed for the night.

Coal dust, blast & wood and coal dust being used successfully

Kinetoscope Reg. Reagan 2 films.

Papers Smith & Coleman article on phosphor

Brush lighting Bill from 12 to 24 lbs Gordon Eng & S. Machines for the 22 lbs of 2000 c.p. each

Wednesday Dec 15. 80

Local loss. Mr. Clark furnishes data of Measurements of Local loss, Vinile Mark direction to test accuracy etc, loss about 4 h.p. B.W. Mr. Wm.

Electroplating, Exp. continued by Acheson Book No. 165. page 156.

Electroplating, Gannon put at plating Earbrass at Factory.

Supplies Hartman working in room and absent.

Visitor Buderman.

Incl. Lamp burned at rate 2.34 hrs after being burned at 16 for 20 min time.

Thursday Dec 16. 80

Small dynamos taken to factory for Sheran Generator for answer for Dr. Stop.

Interior decorations All finished this a. Boards with pine swing points may adj.

Incl. Lamp Carbon 16½ hrs

Present Acheson at Hamilton Paint bought specimen of Petroleum after calibration

Bump hanging, Mr. Pratt despatch to Mr. Hunt in motion at bottom to spring & take at top.

Friday Dec 17

Water so low steam dredging

Lorraine Station Ashburn Minister coming
Gone Dec 18 Perform cash work for Mr Edmonds

Pumps fill line we are not landed

Small dynamo running for counter
Slight drain by Edison motor

Gas furnace C.O. Moore of Franklin
by Edison

Stephen "Post" Man Lally for Bush

Saturday Dec 18. 80.

Smashed Elec Eng. Mr Edison found a leak
the wire in the conduit by the magnet, it
was then bolted to Lotus and we have run
fast feed through the cable

Work general. Incloses some being
spoiled for want on larger dynamo. Cal
Factory. Stores in Pumps & lamps.
Mr Fish. Manning

Blower repair. Elec motor replaced
with upright engine in boiler room

Monday Nov 20, 80

100 Lamps outside and about 17 inside
Kerosene lighted and burning last night 181
7 per incandescent 174 of Edgerton so stated by Mr Ott.

Engineer Mr Clarke from indication
of engine while supplying 181 lamps
found 5 Dynamos and 1 pair Motors.

Visitors last night Bender mayor and
same friends

Local, large burning under boiler

Small dynamo again obstreperous &
could not be made to run. Mr
E. finally made the connections run

Visitors Alderman R. W. city north
"Gazette" about 230 lamps
displayed

Tuesday Nov 21, 80

Papers, accounts of the illumination
and speaches here last evening.
Also that in Lorain the Telephone
Bill was decided agt. Edison

Gants Acheson with carbons soaked
in petrol & benzole.

Lamps glowing Larson making some
carbons together.

Wednesday, Decr 22. 80

Visitors Brown & Walthrim on Camp Sacramento Cal.

Admit Messrs Edwards Ware & Burch.

Motor tester 2600 Revs 92 volts

Gambling 3200 sins 9½ ace of hearts 6, 15¢ each.

Thursday Decr 23. 80

Engine, Mr running in crank & find rear pr. = and drawing water,

Repairs large head blocks tied in arms

Visitors Harlin of McV & Harlin with 3 friends.

Motor Mr Elfton testing the new to determine the fault of 61 ohms resistance, Mr. Edw is in favor of winding at about 2 ohms, testing on to record.

American Mica Co. sent in Edinburgh = pressure white sheet lit, line board mch. dry dry

Gamblers lots commenced trading at Sachs with Dynamometer

Tuesday Dec 28.80

Arc lights put out and economy test of engine made, 75 Rev 98 lb steam, 6¾ pounds power on Crocker wks. last night again burning.

Alarm E.P. Mott, alarm Friday till this morning.

Mott, on Friday semi-circular drs fixed and preparations made for sending drive well. Actual work commenced Monday morning.

Today the second time of pumps completed, drive well above 20 ft. depth, no water.

Motor, small, gov. removed, and time of shafting put up to be run by it.

Burlington Advertiser discovered that by excluding the air from moved while cooling, they return molasses color.

Wednesday Dec 29.

Report heard, disbarred from Phila that C.A. Engine is finished and ready shipped. Also that Res replies from Com. Commerce allowing E.L. bra to put in rows at 10 cts per linear foot of other dividends & also 5 per day 3 per ct of gross receipts.

Alarm from Edison & Clarke in N.Y. Mott & Maj Eaton.

Gen (?) Jones combination test with schol & Co. some inaccuracy, test results.

Ashes taken to factory, to another Mr.

Dec 29

Test the last 100 average 5-1/2 volts
To day at 48 c average 12-1/2 = Not Dec

Thursday Dec 30 80

Report no power in mining changing
Fittings for Organ Cases

Plating Chas Mathews on governor thinking
he persistence, end of plating apparatus
made by Mr E active on Dec in Motor
dead as Dat Office drawings

Organ deliver, the current Poly Lamp Chan
delier completed and taken to Mr E hands

Lab Room Mr Clark communicated with
the estate of Sprague Esq for lot of Plants

Friday Dec 31, 80

Walsh & P Mott watched all last
night to discern if possible the
cause of the A. M. Dynamo plugging
Meadows at 6 steam wipe Rewind
ment and some illed Calculating

Albert Mr Clarke in Pulsator
Tests Continue.

Present Mr. Edison say ink gutta made
care from Mr E. Dreer.

1880 closes with the new moment for the work
of Dec. Lamp & dips to day and things
in readiness for illuminating tomorrow
night very cold.

Incandescence Motors the carbons from the
Lamp moved burned in Carbon were
very high resistance from 2.84 to 7.02
Profile Increase on shorter time burning time
Phase carbons not yet made

Dec 31 80

Egerton, Motive power Head Mr. 20.
Will have charge our office Sunday.

Mr. Bamber, Have 6 carbonized sample. 5 Mile Lin from Sample
Kerosene by Brady to have been sent by agent sent to Hoskins, try for the address Bamber.

Saturday Jan 1. 81

Carbonization Clemson got no good results on ordinary charcoal
Water by passing gas of Petroleum spirit through tube during heating

Wed, Holliday on the evening shift assisting to illuminate
408 Lamps lit in evening a
Number of visitors Very Economical

test of engines made by Clarke
Eng 75 Revs. 823 HP 408 lamps Nov
6193 HP 408 lamps 6.54 per HP
Blow off Nov 7.88 on 2258 lbs steam
per HP per hour, boiler pressure 110
diagrams perfect
Paper World Edison Mutascope
Tough entirely, Edison misunderstood

Monday Jan 3 81

Visitors, Mr Chas. Worcester Mass.
Prime to take intermediate in the morning
Also Hopkins of Scientific American
visit extra also Bridgman in evening

Wed Mr. Sutherland Mass engine and
K.C. 163 arising to continue arising
Nov 7.54

Lamps two in one place in Prime Sunday
Factory

Jany 3.81

Lead cable on coil three wires insulated and encased with lead, used at Gal[illegible]

Tuesday Jany 4.81

Visitor Wilber, says eighty patents now granted to Edison during last year. Goddard & party of friends.

Lead wires tested by Francis, [illegible] to indicate, more notably on Sunday.

New Engineers, new man [illegible] of Mason U.S.L. Co. [illegible] assistant with Swanson.

Porter Allen Engine all used again [illegible]

Jany 5.81

Clamping D. Moses melted silver clamps in goblet & inserted a carbon loop successfully.

Wednesday Jany 5-81

Platinized carbon Lawson boiled carbon in solution of Platinum chloride which will absorb, the solution heating it in vacuum to drive off the chlorine & leave the platinum in pores of the carbon in finely divided state 520 to 525 — BR 106 pg 137 —

Absent Mr Edison in New York.

Building men commenced addition to [illegible] Factory buildings one to new building for carbonizing one to old building for glass storage etc.

Sockets John Ott completed a pair of sockets for B lamps style & plan of one made by Mott Nov. 26.

Governor to throw out resistance as the speed increases, so that when current is [illegible] [illegible] applied, it is light & gradually increased

Thursday Jany 6. 81

Dynamo special, Logan is winding magnets with about 40 lbs No Wire for generator for Building Office in New York.

Galvanization, Acheson is getting out first [illegible] metallic castings for tube with [illegible] prepared by Pugh [illegible] Pots.

Illumination, Lit about 270 Lamps till 8 o'clock. Operation 1.75 - No test made, [illegible] 11 engine.

Visitors, Hagans & [illegible] of Denver Mint & Commissioner & Jany & Members of Other State Boards in U. States.

Lamp Lawson, decided to make Keep with Pugh. Also in Lamps.

Friday Jany 7. 81

Were seen short description of 100 Lamps lit last night, and [illegible] is expected of the Pulsing Engine.

Platinized Carbons, or lamps, have with shown by Pugh incans on same circuit with regular at begin - was 80 [illegible]

Outside circuit 377 posts 4 Mp = 378 with Lamps only in operation.

Annealing, Mr. Edison made [illegible] 70 Grammes of Annealed with due care [illegible]

Saturday Jany 8. 81

Visited Miller & Ever with a Keyseyder & Rita Gedger about Mr Barthin on N.Y.

Exp Lamps, carb tow. Platinic pear. way up one side, 2 carb tops & Platy tops 2 tops in same globe with angles & in series, one inc & half tops set to top, tested at 48 & 2½ Lamps treated with petroleum & platinized tops & tested with carbolic acid tested at 2.21 & Bk No. 186 page 1 etc

Lamp tests. 27 Lamps see morning & 48 see in tests above see morning & 3 see Tuesday morning 5 & 6 month Book No. 1 page 71 etc.

Observation Lamps tests to short Have see early morning Lamps burning see counter shaft displaced & been out & adjusted.

Monday Jany 10. 81

Mr. A. Cables cables of 2010 now 15 pounds heavy & current from & machine is not now bound together to replace

Silver plated 28 oz Flask made & Cardinal

Publication, All night service worked on & Electric leaves on the 20 Vacuum here for Illustration in Boston

Exp Lamps, Nearly 800 Exp Lamps Have seen from the Editor, Mon. average yesterday of 1000 are burning at 48 candles

Visitors Evening

Papers Rita Gedger long wed Thousand articles on Extreme Lamps.

Tuesday Jany 11

Carbon former. Annoying working more
Fusing by Batchelor for special carbons.

P.G. Sun. Tie. Machine. Dynamo plant
Lase moved into Eng. room

Absent Mr Edison N.Y. as map

Lazier, Mr Dyer phone house as Bergen

Armature Beam commenced putting
together on the commutator.
Middle of week & backward date
commutator now making.

Jany 12

Spiral Armature Single wound for N.H
Armature Costs 0.35, on half less
than expected.

Wednesday Jany 12 81

Records & data for ident. of lining
Carbons relief, prior finished by Dr

Plating Apparatus finished by Edmund
Keeping 4 hours sense to regulate the
deposit of the plating.

Clamp by Apparatus Also made. Same
receiver stirs with hard rubber end
to hold the inner tube subpressure and
water white hard at proper depth by [illegible]

Gindon sine gives 1024 feet in Engine
Second to Conv. P.C. Co. 4 miles etc.

Lazier dynamo Tie Car. Magnets also
Treated & wound for "Dig"

Absent Messrs Edison Johnson Batchelor
Tri New York.

Thursday Jany 13 81

Factory, Parsons delivering sand moves
Kat work on Boiler foundations etc
in corner of Lot

Kalen E. O. Hamilton Eng Inventor N.Y.

Coffee Lamps all gone but 1. Washington Corp
Mr Carson engine determined which had been
at 36 candles instead 48 candles
experiments continued. During the night
and Mr Carson found 108 Results had
been made in testing or in the world of
special coffee lamp at the Laboratory

Jany 14
Motor boat Sent for 2 sets of Motor
Kat Engines planed & sent on large
planes

a

Friday Jany 14 81

Papers This week Scientific American
Electrician & Electrical Review Engineer
Mechanics very well with short desire to Circle

Special Experiments Carbon "Pencil" made
Kat Night Work up & tested by Frances

Water Tight by Pressing varnish of Mr Wilson
Kat in consequence made to Commission
the same for Repeats of Gas & Journal
Electric Motors at New York

Sketch made by Otto design Stationary
Vibrator

Spring Apparatus made, spring bar
in center, cross bar & four stop rods
Kat Insulated, square holes through from the
center spring sunk from the glass to
Pith in

Saturday Jany 15. 81

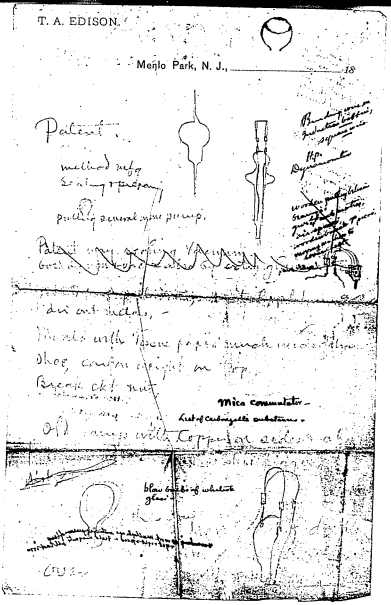
About Mr Edison in New York
E P Mott left for home, 11.20

Work general for past week. Men
at work on building additions at
factory. Advised continuing experiments
for coating carbons, Copper and
preparing Porter Allen Engine
Dean & Assists on Armature,
Moddle dive from Made
by Cunningham. A member
of Copper Lamps tested at 1 P.M.

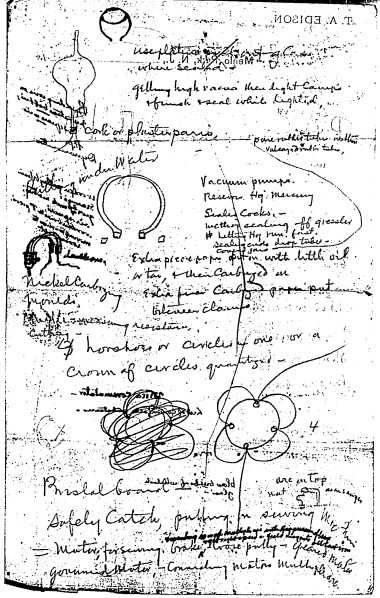
II

T. A. EDISON.

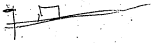
Menlo Park, N. J., _____ 18



T. A. EDISON


Carl or platinoparis
Vacuum pumps.
Receiver Hg. mercury
Sealed Corks.
Sealing off glass tube
Exhausting with bitth oil
Bitumen cement
Horseshoe or circles of one or a
Crown of circles grouped
Broaded brush
Safety Catch, putting in sewing
Motor for sewing
Governed Motor, Governing motor

Jobb Factory Complete 119, 171, 172
Rivals Wiliers 109, 118.
Chins Shutting up Patents 60 ✓
Bacteria Pumps Experiments etc 136 ✓
Edison Electrolyse Eng. &c 155 ✓
Welsh Experiments at factory 186 ✓
Hovers Outside Lamps rec'd. 178 ✓
Statistics concerned 140 ✓
Edison Experiments on carbons 168 ✓
Elec Experimental Lamps 185
Hovers from Factory (Welsh) 186 ✓
194
Hovers Sets Base & Bamboo 166 ✓

E. W. Gurnsey
174. ✓
Chrysanthemums

Lord, Stewart, Worthy
Pt Mrs. E. Mossington,